$FILE 'HOME' ENTERED AT 14:31:52 ON 25 FEB 2004

STN

=> file agricola biosis caplus caba
C=> s aiia
L1 126 AIIA

=> duplicate remove l1
L2 85 DUPLICATE REMOVE L1 (41 DUPLICATES REMOVED)

=> d ti 1-25

L2 ANSWER 1 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI The Ti plasmid of Agrobacterium tumefaciens harbors an attM-paralogous gene, aiiB, also encoding N-Acyl homoserine lactonase activity.

L2 ANSWER 2 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI The antiproteinuric effect of losartan is systemic blood pressure dependent.

L2 ANSWER 3 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI AhlD, an N-acylhomoserine lactonase in Arthrobacter sp., and predicted homologues in other bacteria.

L2 ANSWER 4 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Effect of angiotensin II receptor antagonism on cerebral vasomotor reserve in humans.

L2 ANSWER 5 OF 85 CAPLUS COPYRIGHT 2004 ACS on STN
TI Erythropoietin requirements: a comparative multicenter study between peritoneal dialysis and hemodialysis

L2 ANSWER 6 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Efficacy and tolerability of nilvadipine in combination with an angiotensin II receptor antagonist in patients with essential hypertension: A multicenter, open-label, uncontrolled study.

L2 ANSWER 7 OF 85 CAPLUS COPYRIGHT 2004 ACS on STN
TI Drugs that interrupt the renin-angiotensin system should be among the preferred initial drugs to treat hypertension

L2 ANSWER 8 OF 85 CAPLUS COPYRIGHT 2004 ACS on STN
TI Effects of PEG-hirudin in clotting parameters and platelet function and its interaction with aspirin in healthy volunteers

L2 ANSWER 9 OF 85 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 6
TI Degradation of pathogen quorum-sensing molecules by soil bacteria: a preventive and curative biological control mechanism.

L2 ANSWER 10 OF 85 CAPLUS COPYRIGHT 2004 ACS on STN
TI ACE inhibitors (ACEi) and angiotensin II receptor antagonists (***AIIA***): which drugs are suitable?

L2 ANSWER 11 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Cloning and ecological significance of ***aiiA*** from Bacillus cereus UW85.

L2 ANSWER 12 OF 85 CAPLUS COPYRIGHT 2004 ACS on STN
TI Method for controlling pathogenic bacterial quorum-sensing by ***aiiA*** gene expression in transgenic tobacco and potato plants

L2 ANSWER 13 OF 85 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 7
TI Genes encoding the N-acyl homoserine lactone-degrading enzyme are widespread in many subspecies of Bacillus thuringiensis.

L2 ANSWER 14 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Comparative effects of candesartan and enalapril on left ventricular hypertrophy in patients with essential hypertension: The candesartan assessment in the treatment of cardiac hypertrophy (CATCH) study.

L2 ANSWER 15 OF 85 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 9
TI Identification of quorum-quenching N-acyl homoserine lactonases from Bacillus species.

L2 ANSWER 16 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI A retrospective, population-based analysis of persistence with antihypertensive drug therapy in primary care practice in Italy.

L2 ANSWER 17 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Genetically programmed autoinducer destruction reduces virulence gene expression and swarming motility in Pseudomonas aeruginosa PAO1.

L2 ANSWER 18 OF 85 CAPLUS COPYRIGHT 2004 ACS on STN
TI Pharmacokinetic and pharmacodynamic characterization of a medium-molecular-weight heparin in comparison with UFH and LMWH

L2 ANSWER 19 OF 85 CAPLUS COPYRIGHT 2004 ACS on STN
TI Angiotensin II and IGF-I may interact to regulate tubulointerstitial cell kinetics and phenotypic changes in hypertensive rats

L2 ANSWER 20 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Pharmacokinetics of phosphopentomannan sulfate (PI-88) in a non-human primate model: Clinical implications for therapeutic drug monitoring.

L2 ANSWER 21 OF 85 CAPLUS COPYRIGHT 2004 ACS on STN
TI Angiotensin-converting enzyme inhibitors and angiotensin receptor antagonists in diabetic renal disease

L2 ANSWER 22 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Improving the managed care of hypertension with angiotensin II antagonists.

L2 ANSWER 23 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Optimization of the Dosing of Tinzaparin for Surgial and Interventional Dosing Correlation of ACT and TEG Results.

L2 ANSWER 24 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Heparinase Digestion of Tinzaparin: A Novel Approach to Neutralize the Anticoagulant and Potential Hemorrhagic Effects of Low Molecular Weight Heparin.

L2 ANSWER 25 OF 85 CAPLUS COPYRIGHT 2004 ACS on STN
TI Cloning of a Bacillus autoinducer inactivation protein ***AiiA*** gene and its mutagenesis and expression for agricultural application

=> s l2 not Angiotensin
L3 38 L2 NOT ANGIOTENSIN

=> d ti 1-38

L3 ANSWER 1 OF 38 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN
TI Degradation of pathogen quorum-sensing molecules by soil bacteria: a preventive and curative biological control mechanism.

L3 ANSWER 2 OF 38 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN
TI Genes encoding the N-acyl homoserine lactone-degrading enzyme are widespread in many subspecies of Bacillus thuringiensis.

L3 ANSWER 3 OF 38 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN
TI Identification of quorum-quenching N-acyl homoserine lactonases from Bacillus species.

L3 ANSWER 4 OF 38 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN
TI ***AiiA*** , an enzyme that inactivates the acylhomoserine lactone quorum-sensing signal and attenuates the virulence of Erwinia carotovora.

L3 ANSWER 5 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Cloning and ecological significance of ***aiiA*** from Bacillus cereus UW85.

L3 ANSWER 6 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI The Ti plasmid of Agrobacterium tumefaciens harbors an attM-paralogous gene, aiiB, also encoding N-Acyl homoserine lactonase activity.

L3 ANSWER 7 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Heparinase Digestion of Tinzaparin: A Novel Approach to Neutralize the Anticoagulant and Potential Hemorrhagic Effects of Low Molecular Weight Heparin.

L3 ANSWER 8 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Optimization of the Dosing of Tinzaparin for Surgial and Interventional Dosing Correlation of ACT and TEG Results.

L3 ANSWER 9 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI AhlD, an N-acylhomoserine lactonase in Arthrobacter sp., and predicted homologues in other bacteria.

L3 ANSWER 10 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Pharmacokinetics of phosphopentomannan sulfate (PI-88) in a non-human primate model: Clinical implications for therapeutic drug monitoring.

L3 ANSWER 11 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Genetically programmed autoinducer destruction reduces virulence gene expression and swarming motility in Pseudomonas aeruginosa PAO1.

L3 ANSWER 12 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Monitoring of high dosage of low-molecular-weight heparins: Implications in the treatment and interventional indications.

L3 ANSWER 13 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Pharmacokinetics of phosphopentomannan sulfate (PI-88) in a non-human primate model: Clinical implications for therapeutic drug monitoring.

L3 ANSWER 14 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Quenching quorum sensing-dependent bacterial infection.

L3 ANSWER 15 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Comparative pharmacokinetics and pharmacodynamics of Tinzaparin and unfractionated heparin at a fixed dosage (75 U/kg) in primates.

L3 ANSWER 16 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Measurement of a novel synthetic anticoagulant oligosaccharide in normal human plasma by ecarin clotting time supplemented with heparin cofactor II.

L3 ANSWER 17 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Comparative pharmacokinetics and pharmacodynamics of Tinzaparin and unfractionated heparin at a fixed dosage (75U/kg) in primates.

L3 ANSWER 18 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Plasma levels of total and free tissue factor pathway inhibitor (TFPI) as individual pharmacological parameters of various heparins.

L3 ANSWER 19 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Alzheimer-type I astrogliopathy (AIA) and its implications for dynamic plasticity of astroglia: A historical review of the significance of AIA.

L3 ANSWER 20 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Comparative pharmacokinetics of LMWHs.

L3 ANSWER 21 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Antithrombotic activity of para-aminobenzoic acid.

L3 ANSWER 22 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Allelotype analysis (***AIIA***) of adult acute myelogenous leukemia (AML) using microsatellite pattern: Clinical and biological correlations.

L3 ANSWER 23 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Absolute and comparative subcutaneous bioavailability of ardeparin sodium, a low molecular weight heparin.

L3 ANSWER 24 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Comparison of the pharmacodynamic and pharmacokinetic profiles of two low-molecular-mass heparins in rats.

L3 ANSWER 25 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI High intensity social conflict in the Swiss albino mouse induces analgesia modulated by 5-HT-1A receptors.

L3 ANSWER 26 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI The dose proportionality of the pharmacokinetics of ardeparin, a low molecular weight heparin, in healthy volunteers.

L3 ANSWER 27 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Synthesis of a N'-alkylamine anticoagulant active low-molecular-mass heparin for radioactive and fluorescent labeling.

L3 ANSWER 28 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI The alliance for inmates with AIDS (***AIIA***): An effective model for HIV/AIDS education, prevention, treatment, advocacy, and empowerment in prison and release.

L3 ANSWER 29 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI PHARMACOKINETICS OF A LOW MOLECULAR WEIGHT HEPARIN LOGIPARIN AFTER INTRAVENOUS AND SUBCUTANEOUS ADMINISTRATION TO HEALTHY VOLUNTEERS.

L3 ANSWER 30 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI NOVEL ALPHA HEMOGLOBIN HAPLOTYPES IN HORSES.

L3 ANSWER 31 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Effects of PEG-hirudin in clotting parameters and platelet function and its interaction with aspirin in healthy volunteers

L3 ANSWER 32 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Pharmacokinetic and pharmacodynamic characterization of a medium-molecular-weight heparin in comparison with UFH and LMWH

L3 ANSWER 33 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Method for controlling pathogenic bacterial quorum-sensing by ***aiiA*** gene expression in transgenic tobacco and potato plants

L3 ANSWER 34 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Synthetic heparin pentasaccharide depolymerization by heparinase I: Molecular and biological implications

L3 ANSWER 35 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Cloning of a Bacillus autoinducer inactivation protein ***AiiA*** gene and its mutagenesis and expression for agricultural application

L3 ANSWER 36 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Comparison of the pharmacokinetic profiles of three low-molecular-mass heparins-dalteparin, enoxaparin and nadroparin-administered subcutaneously in healthy volunteers (doses for prevention of thromboembolism)

L3 ANSWER 37 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Reactions in the system calcium sulfate-water and on sodium-polyhalite Na2Ca5(SO4)6(H2O)3

L3 ANSWER 38 OF 38 CABA COPYRIGHT 2004 CABI on STN
TI Quieting the raucous crowd.

=> d bib abs 35 33 1 2 3 5 6 9 11 14

L3 ANSWER 35 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:31654 CAPLUS
DN 134:96283
TI Cloning of a Bacillus autoinducer inactivation protein ***AiiA*** gene and its mutagenesis and expression for agricultural application
IN Zhang, Lian-Hui; Dong, Yihu; Xu, Jinling
PA Institute of Molecular Agrobiology of 1 Research Link, Singapore
SO PCT Int. Appl., 49 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001002578	A1	20010111	WO 1999-SG128	19991117

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ,

MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

SG 91822	A1	20021015	SG 1999-3146	19990702
BR 9917419	A	20020402	BR 1999-17419	19991117
EP 1192256	A1	20020403	EP 1999-958619	19991117
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2003504028	T2	20030204	JP 2001-508350	19991117
NO 2001006397	A	20020221	NO 2001-6397	20011227
PRAI SG 1999-3146	A	19990702		
WO 1999-SG128	W	19991117		

AB Disclosed are a Bacillus autoinducer inactivation protein (***AiiA***) gene isolated from Bacillus sp. 240B1 capable of enzymic inactivation of N-acylhomoserine lactones, known as autoinducers (Als), which are involved in the regulation of pathogenic gene expression in the plants. Sequence alignment indicates that ***AiiA*** contains a "HXHXDH" zinc-binding motif that is conserved in several groups of metallohydrolases. Site-directed mutagenesis showed that conserved aspartate and most histidine residues are required for ***AiiA*** activity. Expression of ***aiiA*** in transformed Erwinia carotovora strain SCG1 significantly reduces the release of Al, decreases extracellular pectolytic enzyme activities, and attenuates pathogenicity on potato, eggplant, Chinese cabbage, carrot, celery, cauliflower, and tobacco. These results indicate that the Al-inactivation approach represents a promising strategy for prevention of diseases in which virulence is regulated by Als.

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 33 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:595023 CAPLUS
DN 137:152497
TI Method for controlling pathogenic bacterial quorum-sensing by ***aiiA*** gene expression in transgenic tobacco and potato plants
IN Zhang, Lianhui; Dong, Yihu; Xu, Jinling; Zhang, Xifen
PA Institute of Molecular Agrobiology, Singapore
SO PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002061099	A1	20020808	WO 2001-SG12	20010129
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1358340	A1	20031105	EP 2001-906508	20010129
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
PRAI WO 2001-SG12	W	20010129		

AB Transgenic plants, protected from bacterial pathogens which harbor the ***aiiA*** gene or a functional fragment or modification thereof and express functional ***AiiA*** protein (autoinducer inactivation protein) were produced. The plants and plant materials of this invention

inactivate bacterial pathogen quorum-sensing signal mols., thereby eliminating or reducing the prodn. of bacterial virulence factors which are harmful to plant cells and tissues.
RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 1 OF 38 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN
AN 2003:50558 AGRICOLA
DN IND23339116
TI Degradation of pathogen quorum-sensing molecules by soil bacteria: a preventive and curative biological control mechanism.
AU Molina, L.; Constantinescu, F.; Michel, L.; Reimmann, C.; Duffy, B.; Defago, G.
AV DNAL (QR100.F45)
SO FEMS microbiology ecology, July 1, 2003. Vol. 45, No. 1. p. 71-81
Publisher: Amsterdam, The Netherlands : Elsevier Science B.V.
CODEN: FMECEZ; ISSN: 0168-6496
NTE Includes references
CY Netherlands
DT Article
FS Non-U.S. Imprint other than FAO
LA English
AB The plasmid pME6863, carrying the ***aiiA*** gene from the soil bacterium Bacillus sp. A24 that encodes a lactonase enzyme able to degrade N-acyl-homoserine lactones (AHLs), was introduced into the rhizosphere isolate Pseudomonas fluorescens P3. This strain is not an effective biological control agent against plant pathogens. The transformant P. fluorescens P3/pME6863 acquired the ability to degrade AHLs. In planta, P. fluorescens P3/pME6863 significantly reduced potato soft rot caused by Erwinia carotovora and crown gall of tomato caused by Agrobacterium tumefaciens to a similar level as Bacillus sp. A24. Little or no disease reduction was observed for the wild-type strain P3 carrying the vector plasmid without ***aiiA*** . Suppression of potato soft rot was observed even when the AHL-degrading P. fluorescens P3/pME6863 was applied to tubers 2 days after the pathogen, indicating that biocontrol was not only preventive but also curative. When antagonists were applied individually with the bacterial plant pathogens, biocontrol activity of the AHL degraders was greater than that observed with several Pseudomonas 2,4-diacetylphloroglucinol-producing strains and with Pseudomonas chlororaphis PCL1391, which relies on production of phenazine antibiotic for disease suppression. Phenazine production by this well characterized biological control strain P. chlororaphis PCL1391 is regulated by AHL-mediated quorum sensing. When P. chlororaphis PCL1391 was co-inoculated with P. fluorescens P3/pME6863 in a strain mixture, the AHL degrader interfered with the normally excellent ability of the antibiotic producer to suppress tomato vascular wilt caused by Fusarium oxysporum f. sp. lycopersici. Our results demonstrate AHL degradation as a novel biocontrol mechanism, but also demonstrate the potential for non-target interactions that can interfere with the biocontrol efficacy of other strains.

L3 ANSWER 2 OF 38 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN
AN 2003:36775 AGRICOLA
DN IND23327975
TI Genes encoding the N-acyl homoserine lactone-degrading enzyme are widespread in many subspecies of Bacillus thuringiensis.
AU Lee, S.J.; Park, S.Y.; Lee, J.J.; Yum, D.Y.; Koo, B.T.; Lee, J.K.

AV DNAL (448.3 Ap5)
SO Applied and environmental microbiology, Aug 2002. Vol. 68, No. 8. p. 3919-3924
Publisher: Washington : American Society for Microbiology
CODEN: AEMIDF; ISSN: 0099-2240
NTE Includes references
CY District of Columbia; United States
DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English
AB Gram-negative bacteria can communicate with each other by N-acyl homoserine lactones (AHLs), which are quorum-sensing autoinducers. Recently, the ***aiiA*** gene (encoding an enzyme catalyzing the degradation of AHL) has been cloned from Bacillus sp. strain 240B1. During investigations in the course of the ongoing Bacillus thuringiensis subsp. morrisoni genome project, an ***aiiA*** homologue gene in the genome sequence was found. These results led to consideration of the possibility of the widespread existence of the gene in B. thuringiensis. ***aiiA*** homologue genes were found in 16 subspecies of B. thuringiensis, and their sequences were determined. Comparison of the Bacillus sp. strain 240B1 ***aiiA*** gene with the B. thuringiensis ***aiiA*** homologue gene showed high homologies of 89 to 95% and 90 to 96% in the nucleotide sequence and deduced amino acid sequence, respectively. Among the subspecies of B. thuringiensis having an ***aiiA*** gene, the subspecies aizawai, galleriae, kurstaki, kyushuensis, ostriniae, and subtoxicus were shown to degrade AHL. It was observed that recombinant Escherichia coli producing ***AiiA*** proteins also had AHL-degrading activity and could also attenuate the plant pathogenicity of Erwinia carotovora. These results indicate that insecticidal B. thuringiensis strains might have potential to compete with gram-negative bacteria in natural ecosystems by autoinducer-degrading activity.

L3 ANSWER 3 OF 38 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN
AN 2002:50280 AGRICOLA
DN IND23280464
TI Identification of quorum-quenching N-acyl homoserine lactonases from Bacillus species.
AU Dong, Y.H.; Gusti, A.R.; Zhang, Q.; Xu, J.L.; Zhang, L.H.
AV DNAL (448.3 Ap5)
SO Applied and environmental microbiology, Apr 2002. Vol. 68, No. 4. p. 1754-1759
Publisher: Washington : American Society for Microbiology
CODEN: AEMIDF; ISSN: 0099-2240
NTE Includes references
CY District of Columbia; United States
DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English
AB A range of gram-negative bacterial species use N-acyl homoserine lactone (AHL) molecules as quorum-sensing signals to regulate different biological functions, including production of virulence factors. AHL is also known as an autoinducer. An autoinducer inactivation gene, ***aiiA*** , coding for an AHL lactonase, was cloned from a bacterial isolate, Bacillus sp. strain 240B1. Here we report identification of more than 20 bacterial isolates capable of enzymatic inactivation of AHLs from different sources. Eight isolates showing strong AHL-inactivating enzyme activity were selected for a preliminary taxonomic analysis. Morphological phenotypes and 16S ribosomal DNA sequence analysis indicated that these isolates probably belong to the species Bacillus thuringiensis. Enzymatic analysis with known Bacillus strains confirmed that all of the strains of B.

thuringiensis and the closely related species B. cereus and B. mycoides tested produced AHL-inactivating enzymes but B. fusiformis and B. sphaericus strains did not. Nine genes coding for AHL inactivation were cloned either by functional cloning or by a PCR procedure from selected bacterial isolates and strains. Sequence comparison of the gene products and motif analysis showed that the gene products belong to the same family of AHL lactonases.

L3 ANSWER 5 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2003:544558 BIOSIS
DN PREV200300546178
TI Cloning and ecological significance of ***aiiA*** from Bacillus cereus UW85.
AU Borlee, B. R. [Reprint Author]; Handelsman, J. [Reprint Author]
CS University of Wisconsin, Madison, WI, USA
SO Abstracts of the General Meeting of the American Society for Microbiology, (2003) Vol. 103, pp. N-213. http://www.asmusa.org/mtgsrc/generalmeeting.htm. cd-rom.
Meeting Info.: 103rd American Society for Microbiology General Meeting. Washington, DC, USA. May 18-22, 2003. American Society for Microbiology. ISSN: 1060-2011 (ISSN print).
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 19 Nov 2003
Last Updated on STN: 19 Nov 2003
AB Plant health is linked to the diversity of microbes that interact with the plant and the other microbial inhabitants of the rhizosphere. An approach to studying the interactions of these rhizosphere inhabitants is to dissect the communication networks that link them together. Our approach is to disrupt rhizosphere communication that is mediated by acylated homoserine lactones (AHLs). The biocontrol strain Bacillus cereus UW85 disrupts quorum-sensing in Chromobacterium violaceum CV026 and Agrobacterium tumefaciens in vitro. The molecule responsible for the inhibition activity was heat labile and AHLs were not detected in culture supernatants from B. cereus UW85. These findings are consistent with those of Dong et al. who discovered that a strain of Bacillus sp. produces a lactonase enzyme, ***AiiA*** , which inactivates AHLs. The B. anthracis genome contains a homolog of ***aiiA*** (http://tigrblast.tigr.org/ufmg/). We designed PCR primers using the available sequences to detect, clone, and sequence a homolog from the B. cereus UW85 genome. When the B. cereus UW85 homolog was expressed in E. coli, the resulting clones inhibited quorum-sensing. Sequence analysis of the B. cereus UW85 homolog revealed an 88% sequence identity with ***aiiA*** from Bacillus sp. 240B1. A DIG-labeled probe was used to identify a clone containing an ***aiiA*** homolog within a bacterial artificial chromosome (BAC) library of UW85 genomic DNA. A 3-Kb region of this clone was sequenced and used to construct an in-frame deletion and a tetracycline insertion in ***aiiA*** in B. cereus UW85. A mutant analysis addressing the ecological role of ***aiiA*** in the rhizosphere community is underway.

L3 ANSWER 6 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2003:479042 BIOSIS
DN PREV200300479042
TI The Ti plasmid of Agrobacterium tumefaciens harbors an attM-paralogous gene, aiiB, also encoding N-Acyl homoserine lactonase activity.
AU Carlier, A.; Uroz, S.; Smadja, B.; Fray, R.; Latour, X.; Dessaux, Y.; Faure, D. [Reprint Author]
CS Centre National de la Recherche Scientifique, Institut des Sciences du Vegetal, UPR2355, Av. de la Terrasse, 91 198, Gif-sur-Yvette Cedex, France faure@isv.cnrs-gif.fr
SO Applied and Environmental Microbiology, (August 2003) Vol. 69, No. 8, pp.

4989-4993. print.
ISSN: 0099-2240 (ISSN print).
DT Article
LA English
ED Entered STN: 15 Oct 2003
Last Updated on STN: 15 Oct 2003
AB The Agrobacterium tumefaciens C58 genome contains three putative N-acyl homoserine lactone (acyl-HSL) hydrolases, which are closely related to the lactonase ***AiiA*** of Bacillus. When expressed in Escherichia coli, two of the putative acyl-HSL hydrolases, AttM and AiiB, conferred the ability to degrade acyl-HSLs on the host. In Erwinia strain 6276, the lactonases reduced the endogenous acyl-HSL level and the bacterial virulence in planta.

L3 ANSWER 9 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2003:345253 BIOSIS
DN PREV200300345253
TI AhlD, an N-acylhomoserine lactonase in Arthrobacter sp., and predicted homologues in other bacteria.
AU Park, Sun-Yang; Lee, Sang Jun; Oh, Tae-Kwang; Oh, Jong-Won; Koo, Bon-Tag; Yum, Do-Young [Reprint Author]; Lee, Jung-Kee [Reprint Author]
CS R and D Center, inBioNET Corporation, Daejeon, 305-390, South Korea
dyyum@inbionet.com; jklee@kribb.re.kr
SO Microbiology (Reading), (June 2003) Vol. 149, No. 6, pp. 1541-1550. print.
ISSN: 1350-0872 (ISSN print).
DT Article
LA English
ED Entered STN: 23 Jul 2003
Last Updated on STN: 23 Jul 2003
AB Quorum sensing is a signalling mechanism that controls diverse biological functions, including virulence, via N-acylhomoserine lactone (AHL) signal molecules in Gram-negative bacteria. With the aim of isolating strains or enzymes capable of blocking quorum sensing by inactivating AHL, bacteria were screened for AHL degradation by their ability to utilize N-3-oxohexanoyl-L-homoserine lactone (OHHL) as the sole carbon source. Among four isolates, strain IBN110, identified as Arthrobacter sp., was found to grow rapidly on OHHL, and to degrade various AHLs with different lengths and acyl side-chain substitutions. Co-culture of Arthrobacter sp. IBN110 and the plant pathogen Erwinia carotovora significantly reduced both the AHL amount and pectate lyase activity in co-culture medium, suggesting the possibility of applying Arthrobacter sp. IBN110 in the control of AHL-producing pathogenic bacteria. The ahlD gene from Arthrobacter sp. IBN110 encoding the enzyme catalysing AHL degradation was cloned, and found to encode a protein of 273 amino acids. A mass spectrometry analysis showed that AhlD probably hydrolyses the lactone ring of N-3-hexanoyl-L-homoserine lactone, indicating that AhlD is an N-acylhomoserine lactonase (AHLase). A comparison of AhlD with other known AHL-degrading enzymes, Bacillus sp. 240B1 ***AiiA*** , a Bacillus thuringiensis subsp. kyushuensis ***AiiA*** homologue and Agrobacterium tumefaciens AttM, revealed 25, 26 and 21 0/% overall identities, respectively, in the deduced amino acid sequences. Although these identities were relatively low, the HXDHapprxeqHapprxeqD motif was conserved in all the AHLases, suggesting that this motif is essential for AHLase activity. From a genome database search based on the conserved motif, putative AhlD-like lactonase genes were found in several other bacteria, and AHL-degrading activities were observed in Klebsiella pneumoniae and Bacillus stearothermophilus. Furthermore, it was verified that ahlK, an ahlD homologue, encodes an AHL-degrading enzyme in K. pneumoniae. Accordingly, the current results suggest the possibility that AhlD-like AHLases could exist in many other micro-organisms.

L3 ANSWER 11 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2002:305188 BIOSIS

DN PREV200200305188
TI Genetically programmed autoinducer destruction reduces virulence gene expression and swarming motility in Pseudomonas aeruginosa PAO1.
AU Reimmann, Cornelia [Reprint author]; Ginet, Nathalie; Michel, Laurent; Keel, Christoph; Michaux, Patrick; Krishnapillai, Viji; Zala, Marcello; Heurlier, Karin; Triandafillu, Karine; Harms, Hauke; Defago, Genevieve; Haas, Dieter
CS Laboratoire de Biologie Microbienne, Universite de Lausanne, CH-1015, Lausanne, Switzerland
Cornelia.Reimmann@lbm.unil.ch
SO Microbiology (Reading), (April, 2002) Vol. 148, No. 4, pp. 923-932. print.
ISSN: 1350-0872.
DT Article
LA English
ED Entered STN: 22 May 2002
Last Updated on STN: 22 May 2002
AB Virulence in the opportunistic human pathogen Pseudomonas aeruginosa is controlled by cell density via diffusible signalling molecules ('autoinducers') of the N-acylhomoserine lactone (AHL) type. Two Bacillus sp. isolates (A23 and A24) with AHL-degrading activity were identified among a large collection of rhizosphere bacteria. From isolate A24 a gene was cloned which was similar to the ***aiiA*** gene, encoding an AHL lactonase in another Bacillus strain. Expression of the ***aiiA*** homologue from isolate A24 in P. aeruginosa PAO1 reduced the amount of the quorum sensing signal N-oxododecanoyl-L-homoserine lactone and completely prevented the accumulation of the second AHL signal, N-butyryl-L-homoserine lactone. This strongly reduced AHL content correlated with a markedly decreased expression and production of several virulence factors and cytotoxic compounds such as elastase, rhamnolipids, hydrogen cyanide and pyocyanin, and strongly reduced swarming. However, no effect was observed on flagellar swimming or on twitching motility, and ***aiiA*** expression did not affect bacterial adhesion to a polyvinylchloride surface. In conclusion, introduction of an AHL degradation gene into P. aeruginosa could block cell-cell communication and exoproduct formation, but failed to interfere with surface colonization.

L3 ANSWER 14 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2001:443330 BIOSIS
DN PREV200100443330
TI Quenching quorum sensing-dependent bacterial infection.
AU Lian-Hui, Z. [Reprint author]
CS Institute of Molecular Agrobiology, National University of Singapore, Singapore, Singapore
SO Phytopathology, (June, 2001) Vol. 91, No. 6 Supplement, pp. S160. print.
Meeting Info.: Joint Meeting of the American Phytopathological Society, the Mycological Society of America, and the Society of Nematologists. Salt Lake City, Utah, USA. August 25-29, 2001. American Phytopathological Society; Mycological Society of America; Society of Nematologists.
CODEN: PHYTAJ. ISSN: 0031-949X.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 19 Sep 2001
Last Updated on STN: 22 Feb 2002
AB Bacterial cells sense their population density via a sophisticated cell-cell communication system, and trigger expression of particular genes when the density reaches a threshold. This type of gene regulation, which controls diverse biological functions including virulence, is known as quorum sensing. Quorum-sensing signals, such as acyl-homoserine lactones (AHLs), are the essential components of the systems. AHLs regulate virulence gene expression in a range of plant and animal (including human) bacterial pathogens. It appears that single-celled bacterial pathogens use quorum-sensing signals to synchronize virulence gene expression among

family members as a concerted means to overwhelm host defenses. Quorum-sensing system thus represents a fascinating target for development of novel antipathogenic approaches. Recently, we showed that the ***aiiA*** gene from a gram-positive Bacillus sp. 240B1 encoded an enzyme capable of inactivating several AHLs. To test the feasibility of establishing a generic "quorum quenching" approach to control bacterial infection, i.e., to paralyze quorum-sensing systems of bacterial pathogens via inactivation of quorum-sensing signals, we have tested the effect of ***AiiA*** on different AHL signals, and introduced ***aiiA*** to potato and tobacco plants. The results on characterization of ***AiiA*** inactivation of AHL signals and the effect of the enzyme on bacterial infection will be presented.

=> s N-acyl homoserine lactone
L4 254 N-ACYL HOMOSERINE LACTONE

=> duplicate remove l4
L5 134 DUPLICATE REMOVE L4 (120 DUPLICATES REMOVED)

=> d ti 1-25

L5 ANSWER 1 OF 134 CAPLUS COPYRIGHT 2004 ACS on STN
TI Burkholderia mallei and Burkholderia pseudomallei AHL synthases as vaccine and for diagnosis of glanders/melioidosis

L5 ANSWER 2 OF 134 CAPLUS COPYRIGHT 2004 ACS on STN
TI Biofilms, homoserine lactones and biocide susceptibility

L5 ANSWER 3 OF 134 CAPLUS COPYRIGHT 2004 ACS on STN
TI Treatment of surfaces populated by bacteria

L5 ANSWER 4 OF 134 CAPLUS COPYRIGHT 2004 ACS on STN
TI Synergistic compositions of N-acyl homoserine lactones and 4-quinolones

L5 ANSWER 5 OF 134 CAPLUS COPYRIGHT 2004 ACS on STN
TI Slime scale prevention in boiler cooling water system and slime scale inhibitor

L5 ANSWER 6 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Proteomic analysis of wild-type Sinorhizobium meliloti responses to ***N*** - ***acyl*** ***homoserine*** ***lactone*** quorum-sensing signals and the transition to stationary phase.

L5 ANSWER 7 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI The Ti plasmid of Agrobacterium tumefaciens harbors an attM-paralogous gene, aiiB, also encoding N-Acyl homoserine lactonase activity.

L5 ANSWER 8 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Identification and characterization of a GDSL esterase gene located proximal to the swr quorum-sensing system of Serratia liquefaciens MG1.

L5 ANSWER 9 OF 134 CAPLUS COPYRIGHT 2004 ACS on STN
TI The CepIR quorum sensing system contributes to the virulence of Burkholderia cenocepacia respiratory infections

L5 ANSWER 10 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Secondary metabolites of Flustra foliacea and their influence on bacteria.

L5 ANSWER 11 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Quorum-sensing system and stationary-phase sigma factor (rpoS) of the onion pathogen Burkholderia cepacia genomovar I type strain, ATCC 25416.

L5 ANSWER 12 OF 134 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 6
TI Extensive and specific responses of a eukaryote to bacterial quorum-sensing signals.

L5 ANSWER 13 OF 134 CAPLUS COPYRIGHT 2004 ACS on STN
TI Identification of quorum-sensing regulated proteins in the opportunistic pathogen Pseudomonas aeruginosa by proteomics

L5 ANSWER 14 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI GacA, the response regulator of a two-component system, acts as a master regulator in Pseudomonas syringae pv. tomato DC3000 by controlling regulatory RNA, transcriptional activators, and alternate sigma factors.

L5 ANSWER 15 OF 134 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 8
TI Characterization of Pectolytic Erwinias as Highly Sophisticated Pathogens of plants

L5 ANSWER 16 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Acyl-homoserine lactone acylase from Ralstonia strain XJ12B represents a novel and potent class of quorum-quenching enzymes.

L5 ANSWER 17 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Production of substances by Medicago truncatula that affect bacterial quorum sensing.

L5 ANSWER 18 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI A LuxR homolog, aviR, in Agrobacterium vitis is associated with induction of necrosis on grape and a hypersensitive response on tobacco.

L5 ANSWER 19 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Recipient-induced transfer of the symbiotic plasmid pRL1JI in Rhizobium leguminosarum bv. viciae is regulated by a quorum-sensing relay.

L5 ANSWER 20 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Chemical identification of ***N*** - ***acyl*** ***homoserine*** ***lactone*** quorum-sensing signals produced by Sinorhizobium meliloti strains in defined medium.

L5 ANSWER 21 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Detection of homoserine lactone-degrading bacteria in the potato rhizosphere.

L5 ANSWER 22 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Quorum-sensing signal molecule producing pseudomonads from arctic ice and water samples.

L5 ANSWER 23 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Phosphate availability regulates biosynthesis of two antibiotics, prodigiosin and carbapenem, in Serratia via both quorum-sensing-dependent and -independent pathways.

L5 ANSWER 24 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Presence of N-acyl homoserine lactones in soil detected by a whole-cell biosensor and flow cytometry.

L5 ANSWER 25 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Proteomic analysis of legume-microbe interactions.

=> d bib abs 18 15

L5 ANSWER 18 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 10
AN 2003:345405 BIOSIS
DN PREV200300345405
TI A LuxR homolog, aviR, in Agrobacterium vitis is associated with induction of necrosis on grape and a hypersensitive response on tobacco.
AU Zheng, Desen; Zhang, Hongsheng; Carle, Sigrid; Hao, Guixia; Holden, Michele R.; Burr, Thomas J. [Reprint Author]
CS Department of Plant Pathology, New York State Agricultural Experiment Station, Cornell University, Geneva, NY, 14456, USA
tjb1@cornell.edu
SO Molecular Plant-Microbe Interactions, (July 2003) Vol. 16, No. 7, pp. 650-658. print.
ISSN: 0894-0282 (ISSN print).
DT Article
LA English
ED Entered STN: 23 Jul 2003
Last Updated on STN: 23 Jul 2003
AB A Tn5 mutant of Agrobacterium vitis F2/5 (M1154) differs from the wild-type strain in that it has lost its abilities to cause necrosis on grape and a hypersensitive-like response (HR) on tobacco. The Tn5 insertion occurred in an open reading frame (ORF) aviR that is homologous to genes encoding the LuxR family of transcriptional regulators, thereby suggesting that the HR and necrosis are regulated by a quorum-sensing system. Fewer ***N*** - ***acyl*** - ***homoserine*** ***lactone*** autoinducers were detected in extracts from M1154 compare with extracts from F2/5 and from aviR-complemented M1154. The complemented mutant regained full ability to cause grape necrosis and HR. Eighteen ORFs located on a 36.6-kb insert in cosmid clone CPB221, which includes aviR, were sequenced and aligned with homologous genes from A. tumefaciens C58 and Sinorhizobium meliloti Rm1021. The order of several clustered genes is conserved among the bacteria; however, rearrangements are also apparent. Reverse transcriptase-polymerase chain reaction analysis indicated that ORF2 and ORF14 may be regulated by an aviR-encoded transcriptional regulator. Single site-directed mutations in each of the ORFs, however, had no effect on expression of HR or necrosis as compared with the wild-type parent.

L5 ANSWER 15 OF 134 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 8
AN 2003:904358 CAPLUS
TI Characterization of Pectolytic Erwinias as Highly Sophisticated Pathogens of plants
AU De Boer, Solke H.
CS Centre for Animal and Plant Health, Canadian Food Inspection Agency, Charlottetown, C1A 5T1, Can.
SO European Journal of Plant Pathology (2003), 109(9), 893-899
CODEN: EPLPEH; ISSN: 0929-1873
PB Kluwer Academic Publishers
DT Journal
LA English
AB Erwinia carotovora and Erwinia chrysanthemi are the two most important soft rotting bacteria of com.-grown plants. They are genetically diverse as is evident from polymorphisms in the pel and recA genes as well as in rrn, the ribsomal gene cluster. Subpopulations grouped into biovars, pathovars, or subspecies assocd. with various hosts and in different geog. regions suggest specialization in host preference and/or survival in diverse environments. Previous characterization of the pectolytic erwinias as opportunistic pathogens is being replaced by a realization that this group of bacteria exhibits a sophisticated repertoire of pathogenicity and virulence genes and regulators. The presence of an entire hrp gene cluster and assocd. type III secretion system, and global regulators which regulate virulence determinants such as exoenzyme prodn.

and motility, attest to a highly specialized pathogen. The fact that prodn. of extracellular plant cell wall-degrading enzymes are coordinately activated by the diffusible signal mol. ***N*** - ***acyl*** - ***homoserine*** ***lactone*** in a population d.-dependent manner may explain the occurrence of pectolytic erwinia in asymptomatic plant tissues. Transgenic plants expressing bacterial quorum-sensing signal mols. modulate this sensory system and exhibit resistance to soft rot infection. The pectolytic erwinias, being significant plant pathogens that are neither of quarantine concern nor a human health hazard while readily isolated from field sources, make an ideal model for investigating the genetic basis of plant pathogenesis and environmental fitness.

=> d ti 26-50

L5 ANSWER 26 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Metabolites from soil bacteria affect plant water relations.

L5 ANSWER 27 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Quorum sensing in relation to pathogenicity.
Original Title: Bakterialna bunkova komunikacia vo vztahu k patogenite..

L5 ANSWER 28 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Quorum-sensing regulation of a hypersensitive response induced by Agrobactrium vitis.

L5 ANSWER 29 OF 134 CAPLUS COPYRIGHT 2004 ACS on STN
TI Molecular radio jamming autoinducer analogs

L5 ANSWER 30 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Atypical autoinduction of bioluminescence in Vibrio fischeri strain ATCC 49387.

L5 ANSWER 31 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI New insights into regulation by VanT, a Vibrio harveyi LuxR-like transcriptional activator, in Vibrio anguillarum.

L5 ANSWER 32 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI FlhDC, the master regulators of flagellar genes, control gacA expression and extracellular protein production in Erwinia carotovora ssp. carotovora.

L5 ANSWER 33 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI A role for rhamnolipids and homoserine lactones in biofilm stability maintenance.

L5 ANSWER 34 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI ***N*** - ***acyl*** - ***homoserine*** ***lactone*** inhibition of rhizobial growth is mediated by two quorum-sensing genes that regulate plasmid transfer.

L5 ANSWER 35 OF 134 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 17
TI Genes encoding the ***N*** - ***acyl*** ***homoserine*** ***lactone*** -degrading enzyme are widespread in many subspecies of Bacillus thuringiensis.

L5 ANSWER 36 OF 134 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 18

TI Identification of quorum-quenching N-acyl homoserine lactonases from Bacillus species.

L5 ANSWER 37 OF 134 CAPLUS COPYRIGHT 2004 ACS on STN
TI The autoregulatory role of EsaR, a quorum-sensing regulator in Pantoea stewartii ssp. stewartii: evidence for a repressor function

L5 ANSWER 38 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI New synthetic analogues of N-acyl homoserine lactones as agonists or antagonists of transcriptional regulators involved in bacterial quorum sensing.

L5 ANSWER 39 OF 134 CAPLUS COPYRIGHT 2004 ACS on STN
TI The control method of quorum sensing in gram-negative bacteria

L5 ANSWER 40 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Interspecies communication between Burkholderia cepacia and Pseudomonas aeruginosa.

L5 ANSWER 41 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Toward an understanding of microbial communities through analysis of communication networks.

L5 ANSWER 42 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Organic compounds in Cinnamomum cassia reduce biofilm formation and AHL-mediated signaling by Escherichia coli ATCC 33456.

L5 ANSWER 43 OF 134 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 21
TI Evidence of quorum sensing in the rumen ecosystem: detection of ***N*** - ***acyl*** ***homoserine*** ***lactone*** autoinducers in ruminal contents.

L5 ANSWER 44 OF 134 CAPLUS COPYRIGHT 2004 ACS on STN
TI Comparison of bioluminescence-based methods for detecting bacterial quorum sensing molecules in Pseudomonas fluorescens

L5 ANSWER 45 OF 134 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 22
TI Quorum sensing in plant-associated bacteria.

L5 ANSWER 46 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Effect of medium composition, flow rate, and signaling compounds on the formation of soluble extracellular materials by biofilms of Chromobacterium violaceum.

L5 ANSWER 47 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Identification and analysis of an unusual TraR-binding site upstream of the Agrobacterium tumefaciens traM gene.

L5 ANSWER 48 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Characterization of ***N*** - ***acyl*** ***homoserine*** ***lactone*** overproducing mutants of Burkholderia multivorans ATCC 17616.

L5 ANSWER 49 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Differential survival of solitary and aggregated cells of Pseudomonas syringae on leaves.

L5 ANSWER 50 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Inhibition of quorum sensing in Pseudomonas aeruginosa biofilm bacteria by a halogenated furanone compound.

=> d bib abs 45

L5 ANSWER 45 OF 134 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 22
AN 2002:51526 AGRICOLA
DN IND23283323
TI Quorum sensing in plant-associated bacteria.
AU Loh, J.; Pierson, E.A.; Pierson, L.S. III; Stacey, G.; Chatterjee, A.
AV DNAL (QK1.C87)
SO Current opinion in plant biology, Aug 2002. Vol. 5, No. 4. p. 285-290
Publisher: Kidlington, Oxford, UK : Elsevier Science Ltd.
CODEN: COPBFZ; ISSN: 1369-5266
NTE Includes references
CY England; United Kingdom
DT Article; Law
FS Non-U.S. Imprint other than FAO
LA English

=> d ti 51-76

L5 ANSWER 51 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI ropA, a negative regulator of phenazine biosynthesis in Pseudomonas aureofaciens 30-84.

L5 ANSWER 52 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Effect of Pseudomonas aeruginosa quorum-sensing signal molecules on IL-8 production from human corneal epithelial cells.

L5 ANSWER 53 OF 134 CABA COPYRIGHT 2004 CABI on STN
TI Analysis of ***N*** - ***acyl*** ***homoserine*** - ***lactone*** quorum-sensing molecules made by different strains and biovars of Rhizobium leguminosarum containing different symbiotic plasmids Developments in Plant and Soil Sciences.

L5 ANSWER 54 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Multiple ***N*** - ***acyl*** ***homoserine*** ***lactone*** signals of Rhizobium leguminosarum are synthesized in a distinct temporal pattern.

L5 ANSWER 55 OF 134 CAPLUS COPYRIGHT 2004 ACS on STN
TI A second quorum-sensing system regulates cell surface properties but not phenazine antibiotic production in Pseudomonas aureofaciens

L5 ANSWER 56 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI The evolution of bacterial LuxI and LuxR quorum sensing regulators.

L5 ANSWER 57 OF 134 CAPLUS COPYRIGHT 2004 ACS on STN
TI Acyl-homoserine lactone production is more common among plant-associated Pseudomonas spp. than among soilborne Pseudomonas spp.

L5 ANSWER 58 OF 134 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 28
TI Transgenic plants producing the bacterial pheromone ***N*** -

acyl - ***homoserine*** ***lactone*** exhibit enhanced resistance to the bacterial phytopathogen Erwinia carotovora.

L5 ANSWER 59 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Can plants manipulate bacterial quorum sensing?.

L5 ANSWER 60 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Analysis of the microbial communities on corroded concrete sewer pipes: A case study.

L5 ANSWER 61 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Identification of a second quorum sensing system in the biological control bacterium Pseudomonas aureofaciens 30-84.

L5 ANSWER 62 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Characterization of a mutant of Pseudomonas aureofaciens strain 30-84 enhanced in phenazine biosynthesis.

L5 ANSWER 63 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI gfp-based ***N*** - ***acyl*** ***homoserine*** - ***lactone*** sensor systems for detection of bacterial communication.

L5 ANSWER 64 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Identification of bacterial quorum sensing signals in marine "whiting" communities and in cyanobacteria of the genus Synechococcus.

L5 ANSWER 65 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Transcript analysis of the cer operon in Rhodobacter sphaeroides 2.4.1.

L5 ANSWER 66 OF 134 CAPLUS COPYRIGHT 2004 ACS on STN
TI The synthesis of optically pure enantiomers of ***N*** - ***acyl*** - ***homoserine*** ***lactone*** autoinducers and their analogues

L5 ANSWER 67 OF 134 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 32
TI Quorum sensing controls the synthesis of virulence factors by modulating rsmA gene expression in Erwinia carotovora subsp. carotovora.

L5 ANSWER 68 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Multiple bacterial quorum-sensing signals produced by transgenic plants.

L5 ANSWER 69 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Processing and export of peptide pheromones and bacteriocins in Gram-negative bacteria.

L5 ANSWER 70 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Positive and negative communication among rhizobacteria: Effect on patterns of microbial gene expression.

L5 ANSWER 71 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Quenching quorum sensing-dependent bacterial infection.

L5 ANSWER 72 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Signal mimic compounds from plants can affect quorum sensing-regulated behaviors in associated bacteria.

L5 ANSWER 73 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Detection of ***N*** - ***acyl*** ***homoserine*** ***lactone*** expression in Legionella pneumophila.

L5 ANSWER 74 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

TI Interaction of Pseudomonas aeruginosa LasR with the lasB regulatory region.

L5 ANSWER 75 OF 134 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 33
TI Analysis of ***N*** - ***acyl*** ***homoserine*** - ***lactone*** quorum-sensing molecules made by different strains and biovars of Rhizobium leguminosarum containing different symbiotic plasmids.

L5 ANSWER 76 OF 134 CAPLUS COPYRIGHT 2004 ACS on STN
TI Bacterial response to siderophore and quorum-sensing chemical signals in the seawater microbial community

=> d bib abs 72 58

L5 ANSWER 72 OF 134 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2001:443328 BIOSIS
DN PREV200100443328
TI Signal mimic compounds from plants can affect quorum sensing-regulated behaviors in associated bacteria.
AU Bauer, W. D. [Reprint author]; Teplitski, M. [Reprint author]; Gao, M. [Reprint author]
CS Department of Horticulture and Crop Science, Ohio State University, Columbus, OH, 43210, USA
SO Phytopathology, (June, 2001). Vol. 91, No. 6 Supplement, pp. S160. print. Meeting Info.: Joint Meeting of the American Phytopathological Society, the Mycological Society of America, and the Society of Nematologists. Salt Lake City, Utah, USA. August 25-29, 2001. American Phytopathological Society; Mycological Society of America; Society of Nematologists. CODEN: PHYTAJ. ISSN: 0031-949X.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 19 Sep 2001
Last Updated on STN: 22 Feb 2002
AB ***N*** - ***acyl*** ***homoserine*** ***lactone*** (AHL) signal molecules are used by many plant-associated bacterial species to regulate the expression of their genes in relation to local population density ("quorum-sensing"). A diversity of higher plants have been found to secrete unknown, AHL signal-mimic compounds that can either stimulate or inhibit various AHL-regulated behaviors in bacteria (Teplitski et al. 2000. Molecular Plant-Microbe Interactions 13:637-648). The ability of higher plants to specifically alter AHL-regulated behaviors in bacteria by production of AHL signal-mimic compounds could be of broad consequence. AHL signaling in bacteria and the synthesis of AHL signal-mimic compounds by plants are briefly reviewed, with emphasis on some of the important questions concerning the roles that these plant signal-mimic compounds may play in natural encounters between plants and bacteria.

L5 ANSWER 58 OF 134 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 28
AN 2002:1578 AGRICOLA
DN IND23240740
TI Transgenic plants producing the bacterial pheromone ***N*** - ***acyl*** - ***homoserine*** ***lactone*** exhibit enhanced resistance to the bacterial phytopathogen Erwinia carotovora.
AU Mae, A.; Montesano, M.; Koiv, V.; Palva, E.T.

SO Molecular plant-microbe interactions : MPMI, Sept 2001. Vol. 14, No. 9. p. 1035-1042
Publisher: St. Paul, MN : APS Press, [c1987-
CODEN: MPMIEL; ISSN: 0894-0282
NTE Includes references
CY Minnesota; United States
DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English
AB Bacterial pheromones, mainly different homoserine lactones, are central to a number of bacterial signaling processes, including those involved in plant pathogenicity. We previously demonstrated that N-oxoacyl-homoserine lactone (OHL) is essential for quorum sensing in the soft-rot phytopathogen Erwinia carotovora. In this pathogen, OHL controls the coordinate activation of genes encoding the main virulence determinants, extracellular plant cell wall degrading enzymes (PCWDEs), in a cell density-dependent manner. We suggest that E. carotovora employ quorum sensing to avoid the premature production of PCWDEs and subsequent activation of plant defense responses. To test whether modulating this sensory system would affect the outcome of a plant-pathogen interaction, we generated transgenic tobacco, producing OHL. This was accomplished by ectopic expression in tobacco of the E. carotovora gene expI, which is responsible for OHL biosynthesis. We show that expI-positive transgenic tobacco lines produced the active pheromone and partially complemented the avirulent phenotype of expI mutants. The OHL-producing tobacco lines exhibited enhanced resistance to infection by wild-type E. carotovora. The results were confirmed by exogenous addition of OHL to wild-type plants, which also resulted in increased resistance to E. carotovora.

=> s (homoserine lactone) and lactonase
L6 27 (HOMOSERINE LACTONE) AND LACTONASE

=> d ti 1-27

L6 ANSWER 1 OF 27 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN
TI Genetic control of quorum-sensing signal turnover in Agrobacterium tumefaciens.

L6 ANSWER 2 OF 27 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN
TI Identification of quorum-quenching N-acyl homoserine lactonases from Bacillus species.

L6 ANSWER 3 OF 27 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Utilization of acyl- ***homoserine*** ***lactone*** quorum signals for growth by a soil Pseudomonad and Pseudomonas aeruginosa PAO1.

L6 ANSWER 4 OF 27 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI The Ti plasmid of Agrobacterium tumefaciens harbors an attM-paralogous gene, aiiB, also encoding N-Acyl homoserine ***lactonase*** activity.

L6 ANSWER 5 OF 27 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI AhlD, an N-acylhomoserine ***lactonase*** in Arthrobacter sp., and predicted homologues in other bacteria.

L6 ANSWER 6 OF 27 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Genetically programmed autoinducer destruction reduces virulence gene

expression and swarming motility in Pseudomonas aeruginosa PAO1.

L6 ANSWER 7 OF 27 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Genetic control of quorum-sensing signal turnover in Agrobacterium tumefaciens.

L6 ANSWER 8 OF 27 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Identification of quorum-quenching N-acyl homoserine lactonases from Bacillus species.

L6 ANSWER 9 OF 27 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Quenching quorum-sensing-dependent bacterial infection by an N-acyl homoserine ***lactonase*** .

L6 ANSWER 10 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN
TI Utilization of acyl- ***homoserine*** ***lactone*** quorum signals for growth by a soil pseudomonad and Pseudomonas aeruginosa PAO1

L6 ANSWER 11 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN
TI The Ti plasmid of Agrobacterium tumefaciens harbors an attM-paralogous gene, aiiB, also encoding N-acyl homoserine ***lactonase*** activity

L6 ANSWER 12 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN
TI Method for accessing microbial diversity

L6 ANSWER 13 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN
TI AhLd, an N-acylhomoserine ***lactonase*** in Arthrobacter sp., and predicted homologues in other bacteria

L6 ANSWER 14 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN
TI Degradation of pathogen quorum-sensing molecules by soil bacteria: a preventive and curative biological control mechanism

L6 ANSWER 15 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN
TI Quorum quenching and proactive host defense

L6 ANSWER 16 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN
TI The control method of quorum sensing in gram-negative bacteria

L6 ANSWER 17 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN
TI Genes encoding the N-acyl ***homoserine*** ***lactone*** -degrading enzyme are widespread in many subspecies of Bacillus thuringiensis

L6 ANSWER 18 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN
TI Genetically programmed autoinducer destruction reduces virulence gene expression and swarming motility in Pseudomonas aeruginosa PAO1

L6 ANSWER 19 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN
TI Identification of quorum-quenching N-acyl homoserine lactonases from Bacillus species

L6 ANSWER 20 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN
TI Genetic control of quorum-sensing signal turnover in Agrobacterium tumefaciens

L6 ANSWER 21 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN
TI Quenching quorum-sensing-dependent bacterial infection by an N-acyl homoserine ***lactonase***

L6 ANSWER 22 OF 27 CABA COPYRIGHT 2004 CABI on STN
TI Utilization of acyl- ***homoserine*** ***lactone*** quorum signals for growth by a soil pseudomonad and Pseudomonas aeruginosa PAO1.

L6 ANSWER 23 OF 27 CABA COPYRIGHT 2004 CABI on STN
TI The Ti plasmid of Agrobacterium tumefaciens harbors an attM-paralogous gene, aiiB, also encoding N-acyl homoserine ***lactonase*** activity.

L6 ANSWER 24 OF 27 CABA COPYRIGHT 2004 CABI on STN
TI AhlD, an N-acylhomoserine ***lactonase*** in Arthrobacter sp., and predicted homologues in other bacteria.

L6 ANSWER 25 OF 27 CABA COPYRIGHT 2004 CABI on STN
TI Genetic control of quorum-sensing signal turnover in Agrobacterium tumefaciens.

L6 ANSWER 26 OF 27 CABA COPYRIGHT 2004 CABI on STN
TI Quenching quorum-sensing-dependent bacterial infection by an N-acyl homoserine ***lactonase*** .

L6 ANSWER 27 OF 27 CABA COPYRIGHT 2004 CABI on STN
TI Quieting the raucous crowd.

=> d bib abs 27

L6 ANSWER 27 OF 27 CABA COPYRIGHT 2004 CABI on STN
AN 2001:129640 CABA
DN 20013085073
TI Quieting the raucous crowd
AU Leadbetter, J. R.
CS Program of Environmental Science and Engineering, California Institute of Technology, Pasadena, CA 91125-7800, USA.
SO Nature (London), (2001) Vol. 411, No. 6839, pp. 748-749. 9 ref.
Publisher: Nature Publishing Group. London
ISSN: 0028-0836
DOI: 10.1038/35081216
CY United Kingdom
DT Journal
LA English
ED Entered STN: 20011206
Last Updated on STN: 20040216
AB This paper discusses recent research into the degradation of acyl-***homoserine*** ***lactone*** (AHL, a quorum-sensing signal produced by Erwinia sp., which causes soft rot in several crops) and its effect on the expression of quorum-regulated virulence factors. Transgenic tobacco and potato plants expressing the aiiAgene from a Bacillus sp., which encodes an AHL- ***lactonase*** , were resistant to Erwinia infection. The existence of other mechanisms for the biodegradation of AHLs, including an AHL-acyclase from Variovorax paradoxus is discussed. The potential for AHL-degrading enzymes in controlling other quorum-sensing bacterial populations, such as biofilms which are implicated in many human diseases, is considered. The possible existence of an aiiA relative in the quorum sensing plant pathogen Agrobacterium tumefaciens, and the role of AHL-degrading enzymes in nature are also considered..

=> s lactonase
L7 274 LACTONASE

=> duplicate remove l7
DUPLICATE PREFERENCE IS 'AGRICOLA, BIOSIS, CAPLUS, CABA'
KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n
PROCESSING COMPLETED FOR L7
L8 202 DUPLICATE REMOVE L7 (72 DUPLICATES REMOVED)

=> d ti 1-25

L8 ANSWER 1 OF 202 CAPLUS COPYRIGHT 2004 ACS on STN
TI Pharmacogenetics of paraoxonases: a brief review

L8 ANSWER 2 OF 202 CAPLUS COPYRIGHT 2004 ACS on STN
TI Microbial processes for the production of chemically and biologically useful compounds

L8 ANSWER 3 OF 202 CAPLUS COPYRIGHT 2004 ACS on STN
TI Method for accessing microbial diversity

L8 ANSWER 4 OF 202 CAPLUS COPYRIGHT 2004 ACS on STN
TI Virulence genes of Pseudomonas aeruginosa and use of genes and encoded proteins to develop diagnostic and therapeutic agents

L8 ANSWER 5 OF 202 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Utilization of acyl-homoserine lactone quorum signals for growth by a soil Pseudomonad and Pseudomonas aeruginosa PAO1.

L8 ANSWER 6 OF 202 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI The Ti plasmid of Agrobacterium tumefaciens harbors an attM-paralogous gene, aiiB, also encoding N-Acyl homoserine ***lactonase*** activity.

L8 ANSWER 7 OF 202 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI The ascorbate transporter of Escherichia coli.

L8 ANSWER 8 OF 202 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI AhlD, an N-acylhomoserine ***lactonase*** in Arthrobacter sp., and predicted homologues in other bacteria.

L8 ANSWER 9 OF 202 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI ***Lactonase*** and lactonizing activities of human serum paraoxonase (PON1) and rabbit serum PON3.

L8 ANSWER 10 OF 202 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 6
TI Purification and characterization of a ***lactonase*** from Erwinia cypripedii 314B that hydrolyzes (S)-5-oxo-2-tetrahydrofurancarboxylic acid.

L8 ANSWER 11 OF 202 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Mouse macrophage paraoxonase 2 activity is increased whereas cellular paraoxonase 3 activity is decreased under oxidative stress.

L8 ANSWER 12 OF 202 CAPLUS COPYRIGHT 2004 ACS on STN
TI Mouse Macrophage Paraoxonase 2 Activity Is Increased Whereas Cellular Paraoxonase 3 Activity Is Decreased Under Oxidative Stress

L8 ANSWER 13 OF 202 CAPLUS COPYRIGHT 2004 ACS on STN
TI Quorum quenching and proactive host defense

L8 ANSWER 14 OF 202 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Biochemical and applied studies of vitamin production by microorganisms.

L8 ANSWER 15 OF 202 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 8
TI Degradation of pathogen quorum-sensing molecules by soil bacteria: a preventive and curative biological control mechanism.

L8 ANSWER 16 OF 202 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

TI Cloning and ecological significance of aiiA from Bacillus cereus UW85.

L8 ANSWER 17 OF 202 CAPLUS COPYRIGHT 2004 ACS on STN
TI Biosensor using glucose oxidoreductase and gluconolactonase

L8 ANSWER 18 OF 202 CAPLUS COPYRIGHT 2004 ACS on STN
TI Gliocladium ZES gene zearalenone esterases and cDNAs, ZES-expressing microbes, animals, and plants, and their use in zearalenone detoxification

L8 ANSWER 19 OF 202 CAPLUS COPYRIGHT 2004 ACS on STN
TI Identification, cloning and sequences of hydrolases and their use in kinetic resolution of enantiomers

L8 ANSWER 20 OF 202 CAPLUS COPYRIGHT 2004 ACS on STN
TI Ascorbic acid production from yeasts

L8 ANSWER 21 OF 202 CAPLUS COPYRIGHT 2004 ACS on STN
TI Methods for identifying therapeutic targets for treating infectious disease

L8 ANSWER 22 OF 202 CAPLUS COPYRIGHT 2004 ACS on STN
TI Protein and cDNA sequences of lysophospholipase from Fusarium venenotum and Fusarium verticillioides and related expression vectors

L8 ANSWER 23 OF 202 CAPLUS COPYRIGHT 2004 ACS on STN
TI Protein and cDNA sequences of Fusarium venenotum lactonohydrolase and expression vectors

L8 ANSWER 24 OF 202 CAPLUS COPYRIGHT 2004 ACS on STN
TI Process for the production of fructan from sucrose with enzymes from Zymomonas mobilis

L8 ANSWER 25 OF 202 CAPLUS COPYRIGHT 2004 ACS on STN
TI Genes coding for a new pathway of aerobic benzoate metabolism in Azoarcus evansii

=> s l8 and (plant or maize or toabcco or arabidopsis)
L9 14 L8 AND (PLANT OR MAIZE OR TOABCCO OR ARABIDOPSIS)

=> d ti 1-14

L9 ANSWER 1 OF 14 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN
TI Degradation of pathogen quorum-sensing molecules by soil bacteria: a preventive and curative biological control mechanism.

L9 ANSWER 2 OF 14 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Cloning and ecological significance of aiiA from Bacillus cereus UW85.

L9 ANSWER 3 OF 14 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI The Ti plasmid of Agrobacterium tumefaciens harbors an attM-paralogous gene, aiiB, also encoding N-Acyl homoserine ***lactonase*** activity.

L9 ANSWER 4 OF 14 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI AhlD, an N-acylhomoserine ***lactonase*** in Arthrobacter sp., and predicted homologues in other bacteria.

L9 ANSWER 5 OF 14 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Quenching quorum-sensing-dependent bacterial infection by an N-acyl homoserine ***lactonase*** .

L9 ANSWER 6 OF 14 CAPLUS COPYRIGHT 2004 ACS on STN
TI Quorum quenching and proactive host defense

L9 ANSWER 7 OF 14 CAPLUS COPYRIGHT 2004 ACS on STN
TI Gliocladium ZES gene zearalenone esterases and cDNAs, ZES-expressing microbes, animals, and plants, and their use in zearalenone detoxification

L9 ANSWER 8 OF 14 CAPLUS COPYRIGHT 2004 ACS on STN
TI Genes encoding the N-acyl homoserine lactone-degrading enzyme are widespread in many subspecies of Bacillus thuringiensis

L9 ANSWER 9 OF 14 CAPLUS COPYRIGHT 2004 ACS on STN
TI Ascorbic acid production from yeasts

L9 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2004 ACS on STN
TI Quenching quorum-sensing-dependent bacterial infection by an N-acyl homoserine ***lactonase***

L9 ANSWER 11 OF 14 CAPLUS COPYRIGHT 2004 ACS on STN
TI Fodder additive to deactivate mycotoxins

L9 ANSWER 12 OF 14 CAPLUS COPYRIGHT 2004 ACS on STN
TI Enzyme and metabolite profiles of the pentose phosphate pathway in hypocotyls of Phaseolus mungo seedlings

L9 ANSWER 13 OF 14 CAPLUS COPYRIGHT 2004 ACS on STN
TI Enzymic formation of ascorbic acid in rat-liver extracts

L9 ANSWER 14 OF 14 CABA COPYRIGHT 2004 CABI on STN
TI Quieting the raucous crowd.

=> s autoinducer and inactivation
L10 27 AUTOINDUCER AND INACTIVATION

=> d ti 1-27

L10 ANSWER 1 OF 27 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN
TI Identification of quorum-quenching N-acyl homoserine lactonases from Bacillus species.

L10 ANSWER 2 OF 27 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Lsr-mediated transport and processing of Al-2 in Salmonella typhimurium.

L10 ANSWER 3 OF 27 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI ***Autoinducer*** 2 activity in Escherichia coli culture supernatants can be actively reduced despite maintenance of an active synthase, LuxS.

L10 ANSWER 4 OF 27 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI luxS and arcB control aerobic growth of Actinobacillus actinomycetemcomitans under iron limitation.

L10 ANSWER 5 OF 27 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI LuxS-based signaling in Streptococcus gordonii: ***Autoinducer*** 2 controls carbohydrate metabolism and biofilm formation with Porphyromonas gingivalis.

L10 ANSWER 6 OF 27 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Importance of the luxS gene product (***autoinducer*** -2) of rabbit enteropathogenic Escherichia coli RDEC-1 in regulation of virulence

properties in vitro and in vivo.

L10 ANSWER 7 OF 27 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Identification of quorum-quenching N-acyl homoserine lactonases from Bacillus species.

L10 ANSWER 8 OF 27 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Functional genomics approach to identifying genes required for biofilm development by Streptococcus mutans.

L10 ANSWER 9 OF 27 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Signaling system in Porphyromonas gingivalis based on a luxS protein.

L10 ANSWER 10 OF 27 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI AiiA, an enzyme that inactivates the acylhomoserine lactone quorum-sensing signal and attenuates the virulence of Erwinia carotovora.

L10 ANSWER 11 OF 27 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Sequence and function of LuxU: A two-component phosphorelay protein that regulates quorum sensing in Vibrio harveyi.

L10 ANSWER 12 OF 27 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI The global activator GacA of Pseudomonas aeruginosa PAO positively controls the production of the ***autoinducer*** N-butyryl-homoserine lactone and the formation of the virulence factors pyocyanin, cyanide, and lipase.

L10 ANSWER 13 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN
TI Lsr-mediated transport and processing of Al-2 in Salmonella typhimurium

L10 ANSWER 14 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN
TI ***Autoinducer*** 2 activity in Escherichia coli culture supernatants can be actively reduced despite maintenance of an active synthase, LuxS

L10 ANSWER 15 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN
TI luxS and arcB control aerobic growth of Actinobacillus actinomycetemcomitans under iron limitation

L10 ANSWER 16 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN
TI LuxS-based signaling in Streptococcus gordonii: ***autoinducer*** 2 controls carbohydrate metabolism and biofilm formation with Porphyromonas gingivalis

L10 ANSWER 17 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN
TI Method for controlling pathogenic bacterial quorum-sensing by aiiA gene expression in transgenic tobacco and potato plants

L10 ANSWER 18 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN
TI Identification of quorum-quenching N-acyl homoserine lactonases from Bacillus species

L10 ANSWER 19 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN
TI Functional genomics approach to identifying genes required for biofilm development by Streptococcus mutans

L10 ANSWER 20 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN
TI Bacterial strains and genes encoding ***autoinducer*** ***inactivation*** protein for control of bacterial diseases by quenching quorum-sensing signals

L10 ANSWER 21 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN
TI Signaling system in Porphyromonas gingivalis based on a LuxS protein

L10 ANSWER 22 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN
TI Cloning of a Bacillus ***autoinducer*** ***inactivation*** protein AiiA gene and its mutagenesis and expression for agricultural application

L10 ANSWER 23 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN
TI Quorum sensing in the plant pathogen Erwinia carotovora subsp. carotovora: the role of expREcc

L10 ANSWER 24 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN
TI ***Autoinducer*** synthase gene raiI of Rhizobium and methods for increasing nodule number and nitrogen fixation in Leguminosae

L10 ANSWER 25 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN
TI Sequence and function of LuxU: a two-component phosphorelay protein that regulates quorum sensing in Vibrio harveyi

L10 ANSWER 26 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN
TI Characterization of the Erwinia chrysanthemi expI-expR locus directing the synthesis of two N-acyl-homoserine lactone signal molecules

L10 ANSWER 27 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN
TI The global activator GacA of Pseudomonas aeruginosa PAO positively controls the production of the ***autoinducer*** N-butyryl-homoserine lactone and the formation of the virulence factors pyocyanin, cyanide, and lipase

=> s Lian-Hui, Z?/au
L11 3 LIAN-HUI, Z?/AU

=> d ti 1-3

L11 ANSWER 1 OF 3 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Quenching quorum sensing-dependent bacterial infection.

L11 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
TI Rapid evaluation on activity of pozzolanic materials

L11 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
TI Morphology of interface between zeolite aggregate and cement paste

=> s Zhang, Lian-Hui/au
L12 33 ZHANG, LIAN-HUI/AU

=> duplicate remove l12
DUPLICATE PREFERENCE IS 'BIOSIS, CAPLUS'
KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n
PROCESSING COMPLETED FOR L12
L13 19 DUPLICATE REMOVE L12 (14 DUPLICATES REMOVED)

=> d ti 1-19

L13 ANSWER 1 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
TI A bacterial cell-cell communication signal with cross-kingdom structural analogues

L13 ANSWER 2 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
TI Cloning, characterization and sequence of Ralstonia AHL acylase and use for treatment of bacterial infection in mammals and plants

L13 ANSWER 3 OF 19 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Isomaltulose synthase (PalI) of Klebsiella sp. LX3. Crystal structuee and

implication of mechanism.

L13 ANSWER 4 OF 19 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Utilization of acyl-homoserine lactone quorum signals for growth by a soil Pseudomonad and Pseudomonas aeruginosa PAO1.

L13 ANSWER 5 OF 19 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Acyl-homoserine lactone acylase from Ralstonia strain XJ12B represents a novel and potent class of quorum-quenching enzymes.

L13 ANSWER 6 OF 19 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Microbial diversity and prevalence of virulent pathogens in biofilms developed in a water reclamation system.

L13 ANSWER 7 OF 19 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Identification of the essential histidine residue for high-affinity binding of AlbA protein to albicidin antibiotics.

L13 ANSWER 8 OF 19 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Quorum quenching and proactive host defense.

L13 ANSWER 9 OF 19 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Cloning and characterization of a novel lipase from Vibrio harveyi strain AP6.

L13 ANSWER 10 OF 19 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI A motif rich in charged residues determines product specificity in isomaltulose synthase.

L13 ANSWER 11 OF 19 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Expression, crystallization and preliminary X-ray analysis of isomaltulose synthase (PalI) from Klebsiella sp. LX3.

L13 ANSWER 12 OF 19 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Cloning and characterization of a metalloprotease from Vibrio harveyi strain AP6.

L13 ANSWER 13 OF 19 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Genetic control of quorum-sensing signal turnover in Agrobacterium tumefaciens.

L13 ANSWER 14 OF 19 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Isomaltulose synthase from Klebsiella sp. strain LX3: Gene cloning and characterization and engineering of thermostability.

L13 ANSWER 15 OF 19 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Identification of quorum-quenching N-acyl homoserine lactonases from Bacillus species.

L13 ANSWER 16 OF 19 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Quenching quorum-sensing-dependent bacterial infection by an N-acyl homoserine lactonase.

L13 ANSWER 17 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
TI Isolation of isomaltulose-producing bacteria Klebsiella singaporensis, cloning and sequence of an isomaltulose synthase gene and a method for production of isomaltulose in a transgenic plant

L13 ANSWER 18 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
TI Cloning of a Bacillus autoinducer inactivation protein AiiA gene and its mutagenesis and expression for agricultural application

L13 ANSWER 19 OF 19 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

DUPLICATE 14
TI AiiA, an enzyme that inactivates the acylhomoserine lactone quorum-sensing signal and attenuates the virulence of Erwinia carotovora.

=> d bib abs 8 2

L13 ANSWER 8 OF 19 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 6
AN 2003:303339 BIOSIS
DN PREV200300303339
TI Quorum quenching and proactive host defense.
AU ***Zhang, Lian-Hui*** [Reprint Author]
CS Institute of Molecular and Cell Biology, 30 Medical Drive, Singapore, 117609, Singapore
lianhui@imcb.a-star.edu.sg
SO Trends in Plant Science, (May 2003) Vol. 8, No. 5, pp. 238-244. print.
ISSN: 1360-1385 (ISSN print).
DT Article
General Review; (Literature Review)
LA English
ED Entered STN: 2 Jul 2003
Last Updated on STN: 2 Jul 2003
AB Both plants and humans have inducible defense mechanisms. This passive defense strategy leaves the host unprotected for a period of time until resistance is activated. Moreover, many bacterial pathogens have evolved cell-cell communication (quorum-sensing) mechanisms to mount population-density-dependent attacks to overwhelm the host's defense responses. Several chemicals and enzymes have been investigated for years for their potential to target the key components of bacterial quorum-sensing systems. These quorum-quenching reagents, which block bacterial cell-cell communications, can disintegrate a bacterial population-density-dependent attack. It has now been shown that a quorum-quenching mechanism can be engineered in plants and might be used as a strategy in controlling bacterial pathogens and to build up a proactive defense barrier.

L13 ANSWER 2 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:656906 CAPLUS
DN 139:193619
TI Cloning, characterization and sequence of Ralstonia AHL acylase and use for treatment of bacterial infection in mammals and plants
IN ***Zhang, Lian Hui*** ; Lin, Yi Han; Xu, Jin Ling
PA Institute of Molecular Agrobiology, Singapore
SO PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2003068951	A1	20030821	WO 2002-SG11	20020123

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI WO 2002-SG11 20020123

AB This invention provides a gene, qsbA, which encodes a protein useful for inactivating certain bacterial quorum sensing signal mols. (N-acylhomoserine lactones) which participate in bacterial virulence and biofilm differentiation pathways. This N-acylhomoserine lactone acylase gene was isolated from Ralstonia sp., strain XJ12B. The nucleotide sequence of the gene qsbA and the amino acid sequence of the encoded N-acylhomoserine lactone acylase are provided. The gene and enzyme of the invention are useful in controlling bacterial infections in mammals and plants.

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> logoff hold
STN INTERNATIONAL SESSION SUSPENDED AT 15:00:14 ON 25 FEB 2004